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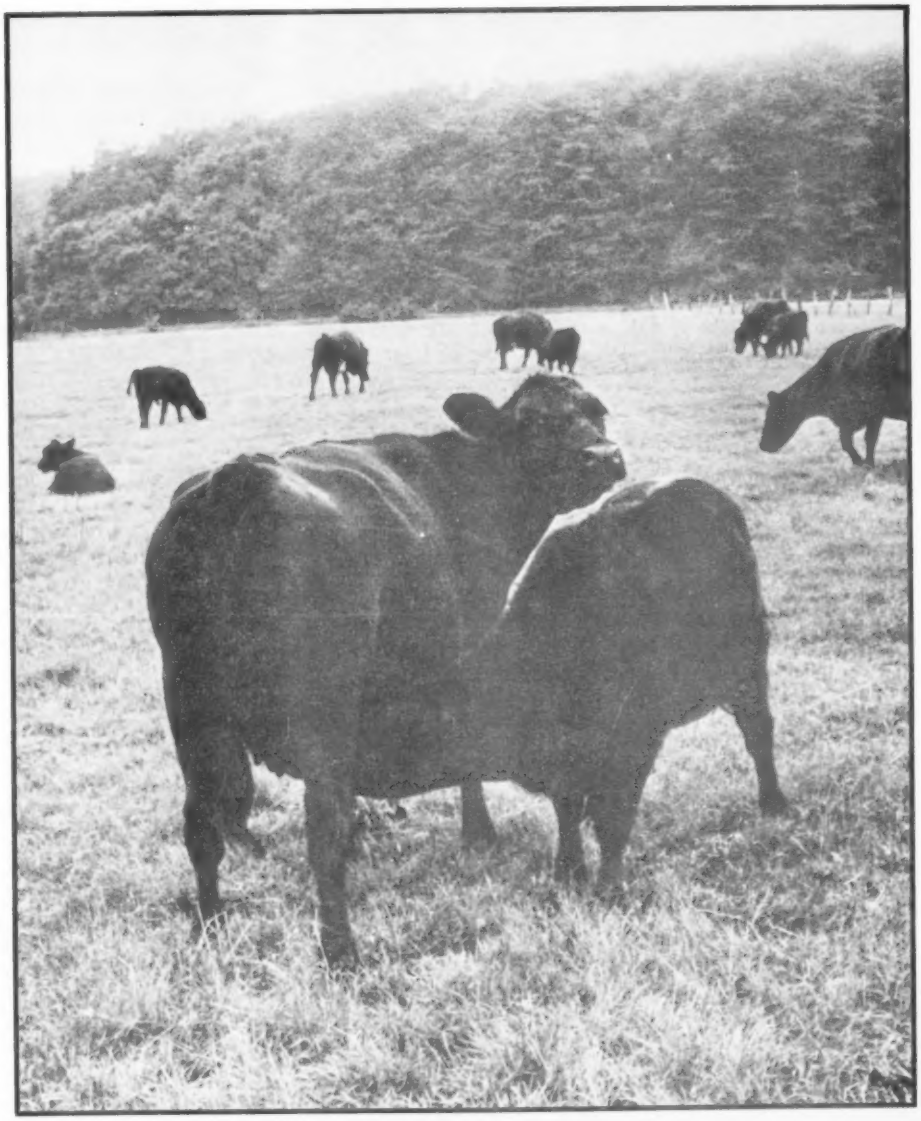

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Livestock Outlook Mixed In W. Germany, Belgium, And Netherlands, Pork Slowdown Seen

By Robert A. Riemenschneider

Although the livestock and poultry situation in West Germany, Belgium, and the Netherlands varies, one common thread among the three EC countries is the outlook calling for a slowdown in pork production and possibly the beginning of a decline in pork output later in the year.

The livestock and poultry industries of West Germany, Belgium, and the Netherlands face a mixed outlook for 1979. Following a period of rising output and declining returns to producers, pork production increases in all three countries are expected to slow and possibly enter a downturn sometime this year.

On the poultry side, Belgian producers continue to encounter problems stemming from stiffer competition from the Dutch in the large West German market. Little change is seen in the beef and veal production and consumption in the three European Community (EC) countries.

Germany's trade in beef and veal this year will be influenced more by EC policies than by market forces. German imports are likely to stay at about current levels, and if there is any change in EC policies, it will be in the direction of more restrictions.

West Germany's pork and poultry production continues to expand, cutting into the flow of imports from other EC countries. Still, Germany must import large volumes to satisfy consumer demand.

In the Netherlands, meat exports account for a large portion of domestic production. The expiration of the U.S. countervailing duty waiver in early January 1979 could hamper Dutch prepared pork exports to the United States. On the poultry side, the Dutch are also encountering stiffer competition from the United States and Brazil in the fast-growing Mideast market.

In Belgium, livestock and poultry industries form the backbone of the country's total agricultural sales. Expanding pork production in Belgium and the EC has dampened prices and returns to hog farmers. Although problems are also cropping up in the poultry and egg industries, Belgium will remain one of the world's leading egg exporters.

A closer look at the livestock situation in these three EC countries:

West Germany. Cattle slaughter and beef production should rise only slightly in 1979 and will depend in part on developments in the dairy sector, the source of most of Germany's beef output. A small decline is foreseen in the country's veal production, and annual beef and veal consumption is expected to remain relatively constant at around 25 kilograms per capita.

Although most of West Germany's imported beef comes from within the EC, substantial imports also come from third countries, which supply mostly lean beef for manufacturing. These imports enter under special EC schemes outside the levy system, such as the levy-free GATT quota (so called because it is maintained in accordance with EC commitments under the General Agreement on Tariffs and Trade), the jumelage system, and the African, Caribbean, and Pacific (ACP) quota. Also, imports of certain types of processed beef are not subject to the variable levy.

Because West Germany's imports of frozen beef under the GATT quota can earn importers a profit of more than 5 West German marks per kilogram, competition is strong among West German importers vying for a larger share of the quota.

West Germany's share of the total EC GATT quota of 38,500 tons in 1979 will be 6,985 tons, of which 90 percent is distributed to importers on the basis of their

The author, an agricultural economist with Dairy, Livestock, and Poultry Division, FAS Commodity Programs, recently completed a trip to West Germany, Belgium, and the Netherlands.

share of actual frozen beef imports during a recent reference period. The remainder of the quota is distributed among all applicants.

Therefore, West German importers desiring to increase their share of the quota in future years must look for means to expand their share of total frozen beef imports. This is not an easy task in light of the high EC import levies on frozen beef.

Consequently, other EC import schemes become attractive because they allow West German importers to increase frozen beef imports and increase their base level for GATT quota shares—without paying the full levy. The new jumelage system, adopted in 1978, is often used for this purpose even though importers sometimes lose money on these transactions.

How New Jumelage System Operates

Under this jumelage system, importers can obtain reduced or zero levy licenses to import frozen manufacturing beef if they purchase an equivalent quantity of beef from EC intervention stocks. This scheme, whose annual target is 50,000 tons, is different from the jumelage system of 1977. Previously, the import licenses issued in connection with purchases from intervention stocks did not have to be used exclusively for manufacturing beef, and there was a separate "balance sheet" scheme for importing this type of beef. Thus, the 1978 jumelage is a combination of the two previous schemes and as such is more restrictive because it lowers the total quantity that can be imported at a reduced levy.

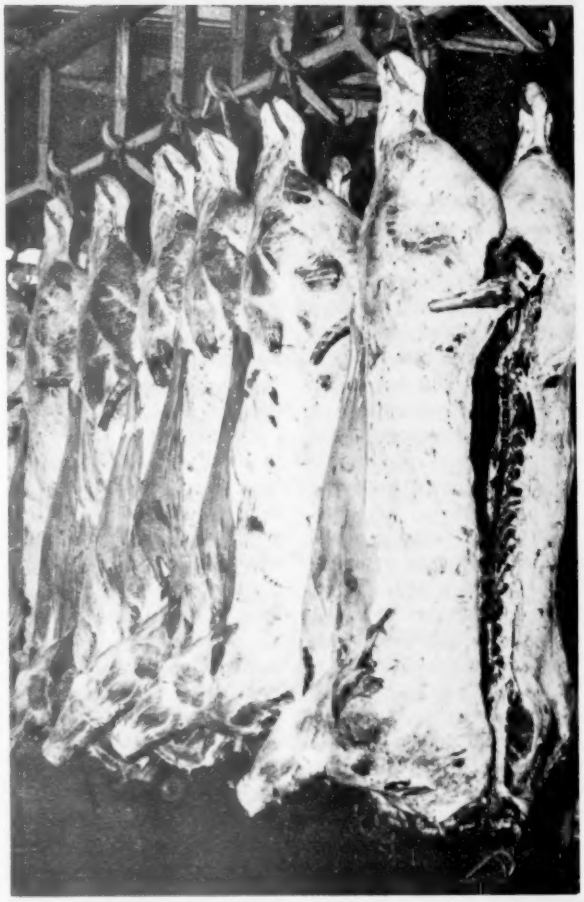
Importers can also purchase frozen beef at a reduced levy through the ACP quota allowing beef imports from former EC colonies in the African, Caribbean, and Pacific regions. Unlike the GATT quota, however, the ACP quota is divided among exporting countries and not allocated among EC members. Under this scheme, Germany only imports a few thousand tons of frozen beef, mostly from Swaziland.

Besides frozen beef, West German traders import several thousand tons of chilled beef from third countries, principally Argentina, and pay the full levy and duty. While chilled beef imports do not count in the base level for GATT quota shares, the levy is lower than that on frozen beef, and sales to certain outlets can be made profitably.

Often overlooked is another aspect of West Germany's livestock and meat trade—namely, that special agreements permit deviations from EC import regulations for trade between the two Germanies. In West Germany, trade with the German Democratic Republic is not considered foreign trade and is not reported in West Germany's trade statistics.

Because of West Berlin's unique situation, West Germany offers the city's residents and industries liberal tax breaks, which along with special import arrangements, encourage a steady flow of East German hogs and cattle into West Berlin for slaughter. This flow averages 3,000-5,000 head of cattle and 4,000-7,000 hogs per week.

Intervention beef stocks in West Germany are the highest in the EC. Part of these stocks form a national reserve, some of which is stored in West Berlin.



Above: Cattle grazing in West Germany where average herd size is around 25 head per farm. Bottom: Beef carcasses hanging in Belgian slaughterhouse.

Because intervention stocks are high in Germany and sales do not always exceed purchases, the intervention agency frequently has to transform frozen meat into canned meat in order to prevent spoilage. Currently, West German intervention beef stocks are around 95,000 tons, product weight, of which about 25,000 tons are canned beef.

Pork production during 1979's first quarter is expected to expand about 10 percent above year-earlier levels, following an estimated 7 percent gain over the last half of 1978. But, production increases are expected to taper off during the rest of 1979, resulting in an overall production increase for the whole year similar to that achieved in 1978.

With its high per capita pork consumption—48 kilograms in 1978—West Germany is a substantial importer, buying nearly all of its requirements from other EC countries and Eastern Europe. Pork consumption has expanded slowly in recent years, but expanded more rapidly in 1978 as production increased. Beef and poultry consumption has remained relatively static.

German poultry production continues to increase with growth in broilers and turkeys estimated at about 5 percent in 1978. The production outlook for 1979 is uncertain, mainly because of price movements, which, in turn, will be affected by the level of exports.

Although West Germany is only 55 percent self-sufficient in poultry and is one of the world's largest importers, exports to third countries have been increasing with the help of EC export subsidies. In recent years, Germany has raised poultry exports to levels achieved in the early 1970's. Exports in 1977 totaled nearly 28,000 tons, compared with a recent low of 10,000 in 1975, and 23,000 in 1973.

Prepared Turkey Parts And Products From U.S.

Most of Germany's poultry imports are from other EC countries, but the United States ships significant amounts of prepared turkey parts and products to the German market because these items are not subject to EC variable levy.

Belgium. Livestock and poultry industries account for about 70 percent of the country's farm sales, with pork representing about 25 percent of total sales, followed by beef and veal at 18 percent and poultry and eggs at about 10 percent.

As in many EC countries, Belgium's pork production and consumption have been expanding. But, despite lower production costs, returns to hog farmers are low as increased pork output throughout the EC has dampened prices. As a result, a slowdown in pork production in Belgium and the EC is predicted.

On the export side, more than one-third of Belgium's pork production goes into export, mostly to France. Since much of France's hog industry is in Brittany, Belgian production is closer to the higher priced Paris market. The Belgians also have a feed-cost advantage as a result of easy access to the port of Rotterdam and its feed milling industry. Belgium's exports last year are estimated at about 245,000 tons, carcass weight equivalent. The country's beef and veal sector is not as export oriented as the pork sector, so Belgium is a small net importer in this regard.

In the poultry sector, Belgium currently faces problems in exports, which account for about 20 percent of the country's total production. Over the past few years, exports have been declining in the face of stronger competition from the Netherlands in the West German market and increased production in West Germany itself.

Also, the export trend appears more toward fresh-chilled poultry and parts, an area in which the Dutch are strong. In addition, Belgium's poultry industry is geared more to meeting domestic demand, although exports do have a significant influence on domestic prices since they affect supply availabilities.

Perhaps the most serious problem is in the egg sector. Egg prices are low and the erosion of Belgium's exports to West Germany, again owing mainly to Dutch competition, has forced more eggs on the domestic market. Low prices combined with a small rise in feed costs have reduced returns to Belgian producers. As a result, egg production is expected to decline in 1979.

Netherlands. Very little change is seen in beef and veal production and consumption over the next few years. As in Germany, much of the recent production growth in Dutch beef has been in young dairy bulls, many of which are raised to 18 months and about 500 kilograms on a ration of approximately 50 percent corn silage and 50 percent concentrates. Beef from this source now accounts for about 20 percent of total beef production.

More than 40 percent of the country's beef and veal production is exported, mostly within the EC. A large portion of these exports is "white veal" from calves that are fed to 100-110 kilograms on a special milk-based ration.

Dutch imports of beef and veal also are mostly from within the EC. Third-country imports, destined mainly for manufacturing, enter as prepared or frozen beef under the various EC import schemes, but some frozen beef imports from third countries pay the full duty and levy.

In the Netherlands, an importer's share of the GATT quota allocation is based only on previous imports of frozen beef under the GATT quota or under full levy. Frozen beef imports under the jumelage system or other EC schemes are not counted by the Dutch Government in determining GATT quota shares. Therefore, Dutch importers can only increase their share of the highly lucrative GATT import licenses by importing frozen beef at full levy.

Third-country frozen beef imports come mostly from South America and in 1978 were expected to remain at or below the 1977 level. However, because of the more restrictive aspects of the 1978 jumelage system for importing manufacturing grade beef, Dutch imports of cooked frozen beef were expected to increase in 1978. Such imports are subject to an EC duty of 26 percent, but no variable levy.

U.S. Is Top Supplier Of Variety Meats

The Dutch are also substantial importers of variety meats, such as beef hearts, calf livers and tongues, and pork livers and kidneys. The United States is by far the leading supplier of these imports, shipping around 20,000 tons in 1978 and in 1977. Dutch traders believe the level of these imports will remain relatively constant over the near term.

The pork situation in the

Modern laying-hen house in Belgium. Low egg prices and erosion of Belgian exports to West Germany have forced more eggs on the domestic market. Despite these problems, Belgium should remain one of the world's largest egg exporters in 1979.

Netherlands is much the same as in West Germany and Belgium—one of expanding production. This expansion has continued, despite depressed pork prices, primarily through the import of low-priced feedgrain substitutes, such as manioc, which is especially attractive in the Netherlands because of the sophisticated feed compounding industry within easy access to the Rotterdam port.

Nonetheless, Dutch pork production is expected to peak in 1979. The turnaround will be influenced by overproduction in the EC and decreased exports of prepared pork to third countries, particularly to the United States following the elimination of the U.S. countervailing duty waiver in January 1979. This negates the present EC subsidies on canned ham exports to the United States.

However, the full impact of the U.S. countervailing duties on Dutch exports will be difficult to assess because Dutch canned pork exports to the United States started declining in 1978. This decline resulted from the combination of the declining dollar, lower EC subsidies (which were necessary to obtain the U.S. countervailing duty waiver), and increased competition from Eastern Europe.

Total Dutch hog and pork exports, which account for more than half of the country's production, may decline in the near future as West Germany—the Netherlands' largest export market—has expanded production. Other export developments include more live hogs but less pork to France and more pork but fewer hogs to Italy. Some exporters see Italy as a growing market since increases in Italian pork demand are running ahead of production increases; the opposite is true in West Germany.

The Netherlands is the world's leading poultry exporter with exports accounting for about three-fourths of production. Consequently, broiler production is influenced more by changes in the export picture rather than in the domestic market. After increasing for the past several years, broiler production is expected to level off in response to increased competition in export markets. Larger output in West Germany is reducing import demand there, while increased competition from the United States and Brazil are affecting Dutch exports to the Middle East—despite EC subsidies for these exports. □

Brazil Boosts Production Of Tobacco

Brazil's total tobacco production for 1978 is estimated at 329,000 metric tons, 6 percent higher than the 1977 total, while output of cigarette leaf tobacco in southern Brazil is estimated at 239,000 tons, up 7 percent from the 1977 level.

Exports of cigarette leaf tobacco during 1978 are estimated at about 75,000 tons, down from 1977's 85,000 tons. Total tobacco exports, excluding waste, during January-August 1978 were 83,000 tons, valued at $183 million.

Cigarette leaf tobacco output in southern Brazil during 1979 is expected to be higher than the 1978 outturn because of expanded area planted plus an anticipated increase in yield.

The area increase reflects producer satisfaction with selling prices, and the anticipated yield increase is related to wider use of chemical sucker control, which was introduced in Brazil during 1977.

Last season, 20-25 percent of flue-cured producers used chemical sucker control, a figure that has jumped to over 80 percent this season.

Another favorable factor in Brazil's flue-cured outlook is the introduction of a new leaf classification system, which will offer incentives for production of the higher quality, orange-colored, high-flavor tobaccos currently in demand on the world market.—*Based on reports from Edmond Missiaen, U.S. Agricultural Officer, São Paulo.* □

World Food Supplies: Abundant Today, But Great Challenges Ahead

By J. Dawson Ahalt

In contrast to a few years ago, the world is in a relatively comfortable situation in terms of world food supplies. Three years of good harvests (record crops in 1976 and 1978) have rebuilt world grain stocks substantially, despite record consumption in each of these years. The global carryout of wheat, coarse grains, and rice at the end of the current season could exceed 225 million metric tons, the highest ever.

Stocks that large would represent about 16.5 percent of current annual world grain consumption. That is a big swing from the lows of about 11 percent that occurred in the mid-1970's, when many of the world's poorest nations faced massive food deficits.

Unfortunately, global totals mask the distribution of supplies. Much of the buildup in stocks is occurring in the food-surplus areas of the world, particularly the United States.

U.S. grain stocks are expected to exceed 80 million tons by the end of 1978/79. Over 30 million tons of this carryover will be partially insulated from the market in a reserve program. Total U.S. stocks have more than doubled in 2 years, and U.S. share of world grain stocks has nearly doubled in 3 years—to about 40 percent. In contrast, the U.S. share of global grain output is less than a fifth.

While little progress has been made in establishing reserves in other developed nations, some of the poorer countries have made progress.

India is a case in point. Relatively good weather patterns the past four seasons have produced record crops and permitted a substantial buildup in stocks. Indian Government wheat stocks, for example, reached 12 million tons at the end of 1976/77, compared with a dangerously low 2.5 million at the end of 1974/75.

Floods this season destroyed part of India's wheat inventory. But Indian wheat stocks are currently about 10 million tons, and rice stocks are estimated at 6 million tons, the largest ever.

Among the other developing countries where stocks data are available, Bangladesh, Taiwan, Colombia, Venezuela, and several Middle East countries have made progress in building stocks.

As global supply conditions have eased, prices for agricultural commodities have declined from highs reached in the mid-1970's. U.S. Hard Red Winter wheat averaged over $200 per ton in Rotterdam in 1973/74. As supplies built up in 1977, prices dropped to nearly $110 per ton at harvesttime. For all of 1977/78, they averaged $130 per ton.

More recently, prices have recovered to about $160 per ton and will be influenced by farmer selling and the size of Southern Hemisphere crops.

Estimates of the number of malnourished in the world range from about half a billion to a billion people out of a world population of a little over 4 billion. Estimates vary because of divergent measurements and indeed actual perceptions of food needs.

Discouragingly, the number of undernourished people in the world has not been reduced in the past two decades, though world grain production increased 51 percent during that time. Although some improvement in per capita consumption has been achieved in the developing nations, it has been a struggle to expand food output at the pace of population growth.

Despite relatively good gains in food output in the developing nations, there are wide variations in the amount of food consumed by various regions of the world, both between and within the economic classifications of developed, developing, and centrally planned nations.

During this past season, 1977/78, people in the developed countries consumed an average of 1,100 pounds of grain per person, directly as grain products or indirectly as livestock products. In the centrally planned countries, the per capita average was 875 pounds; in the developing world, where grains are consumed directly, a little more than 400 pounds.

Average grain consumption levels among the developed countries ranged from 1,600 pounds in the United States to 600 in Japan; among the centrally planned, from 1,700 pounds in the Soviet Union to 500 in China; and among the developing, from Mexico's 660 pounds to India's 360.

Despite these wide variations, and despite the large number of undernourished in the world, there appears to be enough food each year—even in the food deficit areas—to come quite close to meeting a minimal but reasonably well balanced diet. A big part of the problem often lies in moving supplies from the producing regions of a country to the large urban areas.

The evidence of sufficient supplies surfaces in a comparison of per capita caloric consumption with estimated caloric needs.

The minimal estimated caloric requirement for a healthy active person in most developing countries is about 2,280 calories per day. The average daily intake in the developing world is about 2,185 calories. The difference is one or two slices of bread.

The remainder of the world, on the average, surpasses its daily caloric requirements comfortably. People in the developed nations consume about 3,340 calories per day, compared to a 2,550-calorie requirement; per capita consumption in the centrally planned countries averages 2,650 calories, compared with a requirement of 2,350.

Looking at the world as a whole, per capita caloric consumption currently averages about 108

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percent of the minimal requirement.

Over the past several years, there has been a fairly close balance between too much and too little food produced in the world. If the 1978/79 global grain crop turns out as we now expect, it will surpass expected consumption by about 40 million tons and mark the third year in five in which production has exceeded consumption.

Though this development has improved diets in the near term, we cannot expect the current surplus in world grain to persist in the near or distant future.

Weather over the past three seasons has been extraordinarily good worldwide. It is unlikely that another year of record harvests will occur in the next one or two years at least. However, rising population and incomes suggest consumption will continue to grow at a fairly steady pace.

Looking at the longer term, a simple projection of the trends in production and consumption of the past 18 years would imply grain deficits in the neighborhood of 30 million tons annually a decade from now.

Obviously, either production or consumption trends must be adjusted in the long term to reduce, or at least stabilize, the food deficits in the poorer countries.

An assessment of the prospects for meeting future world food needs should differentiate between the needs of the relatively wealthy and relatively poor countries. There are dramatic differences in both the nature of their food needs and their potential to satisfy them.

The highly developed countries consume most of their grains indirectly in the form of animal products. A shift in this direction has been facilitated by rising personal incomes in the market economies, particularly Japan and the Mideast, and political decisions to upgrade diets in the centrally planned areas, particularly the Soviet Union and Eastern Europe. This universal effort to upgrade diets implies increasing demand for feedstuffs and protein meals for animal production.

There has been a shift from direct-grain to animal-protein consumption in the developing world as well, but it has not been nearly as substantial. Many in the poorer countries do not have the incomes to purchase adequate supplies of cereal grains and other crop foods, let alone meat, milk, and eggs. However, the potential for change is staggering.

While tradition and political philosophies are important, income growth is the most critical factor in determining food consumption levels.

With demand for better diets in many parts of the world expanding faster than many nations' ability to boost food production, international trade in agricultural commodities has grown dramatically. From about 70 million tons in 1960/61, total trade in wheat and coarse grains (only small amounts of rice move into international trade) has more than doubled to 155-160 million tons this season.

Developing nations—as well as developed—have become important expanding markets for grains. This has been the situation even prior to the large purchases by China during the last two seasons.

Many of the food-deficit countries have made relatively good economic progress in the past few years, which has enabled them to finance expanded food imports. High oil prices have hurt many countries while others have been able to help their foreign reserve positions through expanded exports into the Middle East.

The following tabulation (in billions of dollars) shows the recent growth in U.S. agricultural exports to the developed, developing, and centrally planned regions:

	1970	1977
Developed	4.6	14.9
Developing	2.2	7.4
Centrally planned	.2	1.8
Total	7.0	24.1

There is little question but that the linkage between the food deficit countries and agricultural exports will continue to be important. The grain exporting nations need the developing as well as the developed country markets in order to expand trade. This suggests that a better understanding and rationalization of development and trade policies between nations are needed. Once some of the barriers are reduced, effective demand in the developed countries can be increased, trade can be expanded, and the number of malnourished, reduced.

The other important factor in assessing the relative abilities of the developed and developing world to meet future food needs is population growth. Some in the agricultural establishment believe that if Malthus was right, it was because of an inability to contain population growth rather than an inability to boost food output. The importance of the population aspect is best illustrated by comparing growth in agricultural production in the developing and developed areas.

Over the past decade, total food production in the developing world has actually increased more rapidly —just under 3 percent an-

Continued on page 12

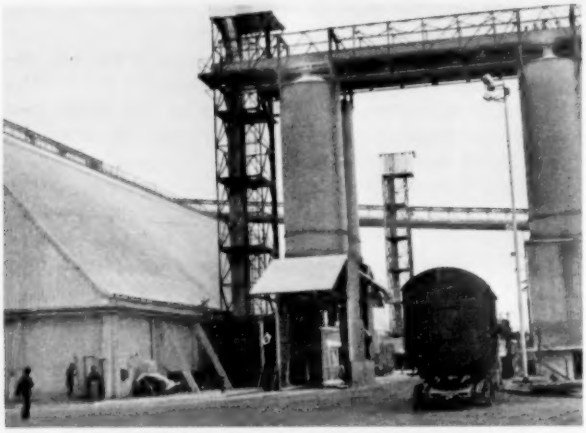
World Grain Supply and Use, 1974/75-1978/79[1]

Item	1974/75	1975/76	1976/77	1977/78[2]	1978/79[3]
Supply:	Million metric tons	Million metric tons	Million metric tons	Million metric tons	Million metric tons
Beginning stocks	146	134	137	192	185
Production	1,212	1,238	1,353	1,322	1,409
Total supply	1,358	1,372	1,490	1,514	1,594
Utilization	1,223	1,237	1,298	1,330	1,367
Ending stocks	134	137	192	185	226
World trade	145	170	168	180	172
Stocks as a percent of use	Percent 11.0	Percent 11.1	Percent 14.8	Percent 13.9	Percent 16.5

[1] Wheat, coarse grains, and milled rice. [2] Preliminary. [3] Forecast based upon early November conditions and reports.

Peak Sunflower Harvest Gives Yugoslavia First Vegetable Oil Surplus

By Abdullah A. Saleh



Views of Yugoslavia's Zadar Soybean crushing plant: Meal loading terminal (above), reversible conveyor belt from dock to storage area (below). The Zadar plant is the country's most modern and largest vegetable oil processing plant.

Two record harvests of sunflowerseed apparently have made Yugoslavia self-sufficient in vegetable oil, but the country will continue to import soybeans and meal to fill the growing demand for high protein meal.

The 1977 sunflowerseed output gave Yugoslavia an exportable surplus of vegetable oil for the first time—20,000 tons—and production in 1978 is estimated to be substantially higher.

However, the Government is expected to build oilseed stocks, rather than expand crushing and exports.

Yugoslavia will require about 390,000 metric tons SME (soybean meal equivalent) of soybeans and soybean meal in 1978/79 from both domestic and foreign sources, equal to about 485,000 tons of soybeans. Of this volume, 40,000 tons SME will be beans of domestic origin and the balance imported.

In the 1978 marketing year (MY), U.S. exports of soybeans and soybean meal to Yugoslavia amounted to 255,904 tons SME, compared with 127,035 tons in marketing year 1977.

U.S. exports of both beans and meal rose between the 1977 marketing year and the 1978 year. Soybean exports rose from 40,000 tons to 180,000 tons and meal exports from 95,000 tons to 113,000 tons.

Until recently, Yugoslavia imported crude soybean oil to help meet its vegetable oil requirements. No oil imports are anticipated in 1978/79, although some oil will result from crushing imported soybeans to fill the need for high protein meal, which is in deficit.

As a result of favorable prices received by farmers in 1977, Yugoslavia is believed to have set records in the production of most of its oilseed crops in 1978, and should reach self-sufficiency in the production of edible vegetable oils in the current marketing year (1978/79).

The sunflowerseed crop—Yugoslavia's major source of vegetable oil—is preliminarily estimated by the country's Federal Statistical Institute at a record high of 550,000 tons from 260,000 hectares, compared with the previous record of 479,000 tons produced on 209,000 hectares in 1977.

Soybean production in 1978 is estimated at 80,000 tons, grown on 35,000 hectares, compared with 67,000 tons from 32,000 hectares in 1977.

The rapeseed crop in 1978 is unofficially estimated at 70,000-80,000 tons, versus some 45,000 tons in 1977. Official estimates of rapeseed area for 1977 and production for 1978 are not yet available.

Much of Yugoslavia's oilseed production is bought by the Government. Such purchases for crushing from the 1978 crop, in 1,000 tons, with 1977 totals in parentheses, were: Sunflowerseed 600 (648); soybeans 60 (57); and rapeseed 70 (39).

Although most of Yugoslavia's arable land is privately owned, about 50 percent of its sunflowerseed is produced on large State-owned farms. Production of sunflowerseed accelerated between 1960 and 1965, when high-oil-yielding varieties from Russia were introduced. These have an

This is the second of three articles on East European oilseed production and processing appearing in consecutive issues of *Foreign Agriculture*. The author is an agricultural economist, Oilseeds and Products Division, Commodity Programs, Foreign Agricultural Service.

oil content of 40-42 percent compared with the 30-percent level of traditional varieties.

Farmers were paid according to the percentage of oil in the seed delivered to Government buyers, and this induced many farmers to switch to the new varieties. At the same time, the Government sped up its mechanization program on both State and privately owned farms.

Because the soybean crop is lagging behind those of sunflowerseed and rapeseed, soybean production is receiving special emphasis in Yugoslavia. The plan ending in 1980 calls for an output of 120,000 tons of soybeans, although observers believe this may be too optimistic.

Yugoslavia will have to import soybeans and/or meal even if planned production is achieved. Yugoslavia is particularly interested in getting more credit from the CCC (Commodity Credit Corporation) for soybean purchases. In fiscal 1978, the U.S. Government extended $17.54 million in CCC credit to finance exports of about 65,000 tons of soybeans. For fiscal 1979, the U.S. Government has committed $21.5 million in CCC soybean export credit to Yugoslavia.

Yugoslavia's total edible vegetable oil consumption for 1978/79 is estimated at 240,000-260,000 tons, compared with 220,000 tons in 1977/78—an average of 10 kilograms per capita. Of the oil consumed in 1977/78, 180,000 tons were as liquid oil, 20,000 tons were in hydrogenated form, and 20,000 tons were margarine. About 3,000 tons of the hydrogenated oil were in the form of shortening containing tallow, which has an aroma preferred by Moslem consumers in Yugoslavia.

Small amounts of pumpkinseed oil—as little as 800 tons—are produced in the northern regions of the country and about 1,500-2,000 tons of olive oil also are produced and consumed annually. Efforts are being made to boost olive production in the growing regions along the Adriatic Sea.

In addition to these vegetable oils, Yugoslavia consumes about 10 kilograms per capita of edible animal fat.

Soybean oil is used in margarine and as hydrogenated vegetable oil, along with sunflowerseed and rapeseed oils. Rapeseed oil also is sold directly to consumers in blends. Sunflowerseed oil is sold in clear, returnable bottles in unblended form. This oil is also sold in large containers blended with soybean oil for institutional and restaurant use.

Because of lack of refrigeration, or for other reasons, blended oil for household use is not so stable as the nonblended oil, so special conditions of storage are required. Brown bottles help to preserve the oil's freshness, but Yugoslav housewives like to see the bottled product and prefer clear glass containers.

Current Yugoslav crushing capacity for all oilseeds (excluding olives and pumpkinseed) is less than 300,000 tons, oil basis. There are 18 plants that process major oilseeds. Of these, two are refineries only that purchase crude oil from other plants. Four are crushing plants without refineries.

The most modern and largest of Yugoslavia's vegetable oil processors is the Zadar soybean crushing plant on the Adriatic coast, a joint venture with Italian interests. With a rated annual capacity of 360,000 tons of soybeans, it currently is operating at 80 percent of this level, but is expected to reach full capacity by 1980. The plant produces 49- and 44-percent protein meals, as well as gummed and degummed crude soybean oil.

The plant does no refining and none is contemplated in the near future. However, plans have been made to process some of the plant's meal into protein for human consumption, possibly by the mid-1980's.

The Zadar plant derives its oil from crushed and flaked beans through the solvent extraction process. Crude oil is stored in nine tanks, totaling 9,000 tons. Lecithin, produced as a by-product of the degumming process, is usually exported to West Germany.

All of the soybeans used by the Zadar plant are U.S. No. 2 beans. After being unloaded, the beans are carried by conveyor belts to an area about one-half kilometer from the dock to a storage complex, consisting of two 40,000-ton hangars. One is for storing incoming beans, the other is for processed meal from the plant.

Construction of a railway terminal near the plant to handle shipments of soybean products will be completed in about a year. By then the facility will have provisions for loading meal in bags or in bulk.

In addition to the Zadar plant, a second plant at Tito Veles has the capacity to crush 500 tons of soybeans a day, plus sizable volumes of sunflowerseed. The plant crushes soybeans when no other seeds are available. In 1977, this plant imported 8,000 tons of soybeans, all from the United States.

There are also two other plants that crush soybeans from time to time, but these are small, old expeller-type facilities with no solvent extraction capability. These plants mostly process domestic soybeans.

In addition to the Zadar plant, another modern plant is currently under construction at Becej with a crushing capacity of 150,000 tons annually. A similar facility is to be built at Vukovar on the Danube. □

France's Grain Crop a Record

France estimates its 1978 total grain crop at a record 44.9 million tons, compared with the 1977 total of 39.5 million tons and the previous high in 1973 of 42.8 million tons.

The French wheat harvest is estimated at a record 20.9 million tons, up from 17.4 million tons in 1977. A record 19.1 million tons were harvested in 1974.

French wheat exports in 1978/79 are projected at 10.6 million tons, compared with 8 million tons in 1977/78, with carryover stocks increasing to about 2.1 million tons from 1.4 million in the previous year.

Barley production is estimated at a record 11.3 million tons, compared with 10.3 million tons in 1977 and a previous high of 10.4 million tons in 1973.

The corn harvest is estimated at 9.35 million tons, up from the previous estimate of 9.2 million tons and the previous year's 8.6 million tons. Corn imports may be about half the previous year's level of 1 million tons. □

Cooperator Programs Change Far East Diets

Wheat Associates, USA (WA), is changing eating habits in the Far East by introducing consumers to wheat dishes as replacements for traditional ones. For example, in Korea WA is teaching housewives to make sandwiches, in Japan helping to promote premixed flour products, and in Taiwan helping to increase the number of schoolchildren who regularly eat wheat products as part of school lunches.

Wheat Associates, USA, is the overseas promotion arm of Western Wheat Associates, Inc., an organization based in Portland, Ore., that cooperates with the Foreign Agricultural Service to build markets in Asia for U.S. wheat.

A rundown of some of Wheat Associates' recent promotional activities follows:

Tokyo. WA/Japan participated in ceremonies marking the 20th anniversary of the Japan Premix Association on October 31. More than 110 guests at a reception hosted by the Association heard the group's President, Tamotsu Matsuzaki, report that the industry's production of premix flour products has risen from 5,000 tons in the early days of the Association to over 130,000 tons in 1977, much of the grain coming from the United States.

Use of U.S. wheat also was promoted by WA/Japan at the 17th Annual Noodle Restaurant Association exhibit in Tokyo, October 18-19. The show displayed products of 130 firms supplying equipment and supplies to noodle restaurants. More than 3,500 Japanese noodle restaurant operators visited the show.

For excellence in promoting Japanese imports of California raisins, Toshio Hannya, marketing specialist in the WA/Tokyo office, has been given an FAS Cooperator Incentive Award. WA/Tokyo promotes California raisins in Japan under contract with the California Raisin Advisory Board. Wheat and raisins are complementary products used by the baking industry.

Seoul. In mid-1978, WA/Korea, the Korea Flour Mills Industrial Association, the Korea Food Development Center, and Soo Do Cooking Institute cooperated in a program under which 13,826 housewives in 15 small cities and 8,760 in 81 less important population centers learned to make American-type sandwiches.

In the early days of WA/Korea activities, recipes were mostly geared to the use of noodles, dumplings, and steam breads. The current round of demonstrations called for the making of 15 different sandwiches, as well as other dishes.

WA biscuit and cracker consultant, Hugh Bright, visited Korea for nearly 3 weeks in late September-early October, under WA/Korea auspices, to introduce the country's cracker/biscuit bakers to the most recent techniques.

For the 6th year in succession, 1978 saw continued growth by the Korean cracker/biscuit industry. In 1972, a year after the first automatic biscuit and cracker equipment was installed in three Korean plants, the industry used only about 16,000 metric tons of wheat a year. In 1978, the industry was expected to utilize about 140,000 tons of wheat, most of it from the United States.

There are 13 Korean companies producing crackers and biscuits. Six of them dominate the market. They plan to further expand production capacity by 30 percent in the next 18 months.

WA milling consultant Walter Hirsch worked in Korea in late October with representatives of nine of the nation's 16 flour milling plants. Based on data gathered during his annual visits to Korea during the past 6 years, Hirsch notes that workers in most mills are becoming skilled, milling operations have improved, and wheat-handling methods are more expeditious. He reports some mills plan to install high-speed bulk flour-handling equipment to pack 1-, 3-, and 10-kilogram family-sized packages of flour.

Taipei. Largely because of encouragement and assistance given by WA/Taiwan, Taiwan's first U.S.-type fast-food operation recently opened—a hamburger outlet. Another fast-food firm will open its first pizza outlet in Taiwan in early 1979 to become the first U.S. franchise pizza outlet in that country.

WA/Taiwan has worked closely with the firm opening the hamburger outlet and has proposed that WA provide advertising support to establish the fast-food concept there. Prior to the opening of the first outlet, Taiwan had no U.S.-based wheat fast-food operation. It is now anticipated as many as 40 outlets will be opened in the next 3 years.

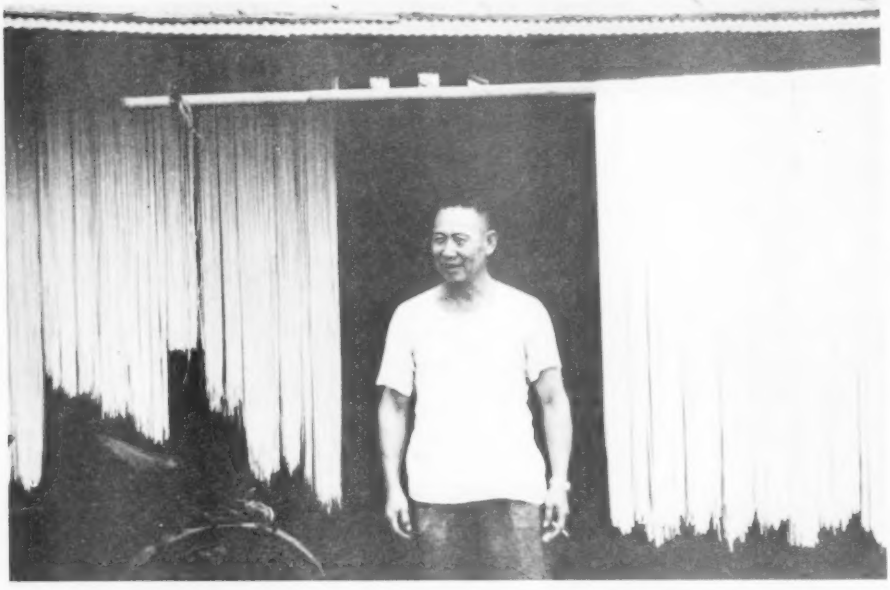
WA/Taiwan has been working for about 2 years to facilitate the opening of the first Taiwan pizza outlet. Among other assistance given by WA/Taiwan was help in measuring potential consumer acceptance of pizza.

The Taiwan school-lunch baking centers are being established by the Taiwan Provincial Department of Education—one each in Hsin Chu and Taipei Prefectures—in cooperation with the governments of the two prefectures. Each center will produce enough rolls each school day to supply 8,000-10,000 primary school children.

WA/Taiwan cooperated in the past with the Provincial Department of Education in the establishment of seven school-lunch baking centers between fiscal 1971 and fiscal 1973. Each of these centers produce between 8,000 and 10,000 rolls per school day. The Education Department later established six other baking centers without WA financial assistance.

In the first 6 months of

By Marcellus P. Murphy, staff writer, *Foreign Agriculture*.



Wheat Associates baking classes, such as those held in Singapore recently (top), are helping to boost U.S. wheat sales in the Far East. Noodle makers, such as shown at bottom, also are using more U.S. wheat.

1978, the 13 baking centers provided, on a self-supporting basis, 4.1 million rolls and 28,440 kilograms of noodles to 222 schools. U.S. wheat flour was an important ingredient in these food products.

Singapore. Koo Teh Tsai, Senior Instructor of the China Baking School (CBS) in Taiwan, recently completed a week's visit to Singapore under the auspices of WA/Singapore. Mr. Koo's trip was the first to Singapore by a representative of CBS.

The baking consultant's first workshop, planned to accommodate 20 participants, was attended by 35 people from the confectionery trade. Two of the visitors came from Indonesia.

A second workshop was attended by 25 people in the bread-baking trade, including a number of local journeymen bakers.

Exports of U.S. wheat to Singapore, Korea, Japan, and Taiwan amounted to 5.5 million metric tons in fiscal 1978. The previous fiscal year they totaled 5.8 million tons. □

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U.S. Cattle To Be Promoted At Dominican Show in March

High-quality U.S. dairy and beef breeding cattle and semen will be promoted at the National Livestock Show in Santo Domingo, Dominican Republic, March 25-April 1, through an information booth manned by the U.S. Agricultural Attaché and representatives of U.S. breed associations.

The U.S. booth will target its message to reach cattle breeders and dairy producers in the Dominican Republic to encourage importation of U.S. stock and semen to upgrade the country's domestic dairy and beef herds. The Republic has an ongoing program to improve the quality of the country's cattle herds and imported breeding stock, including cattle from the United States, has played an important role in this program.

The immediate objectives of the U.S. presence at the show are to put U.S. cooperators in contact with at least 200 Dominican beef and dairy producers and stimulate sales in excess of $100,000 in the 12 months following the fair.

Dairy cattle will be shown and judged in three separate events, beef cattle in one, and horses in two. The show will be capped by a cattle auction in which many award winners will be sold. Among the cattle to be shown at the 8-day event will be dairy and beef cattle imported from the United States and progeny of U.S. bloodlines.

The United States is the Dominican Republic's major trading partner and an important supplier of breeding stock.

U.S. live animal exports to the Dominican Republic in calendar 1978 were valued at $519,400.

In fiscal 1978 (October-September), total U.S. exports of agricultural products to the Dominican Republic amounted to $121.8 million, compared with $101.5 million in fiscal 1977. In addition to live animals, other important agricultural items shipped to the Dominican Republic included grains, dried beans, tobacco, soybeans, tallow, and soybean oil. □

Continued from page 7

World Food

nually—than the 2.7 percent in the developed countries. But rapid population growth changes the story.

Per capita production of food in the developed countries, with a population growth rate of 1 percent, increased 1.7 percent annually during 1968-77. In the developing countries, with population growth at 2.5 percent, the annual gain in per capita output was less than 0.5 percent.

Generally, poor countries that have not slowed their population growth have made the least progress in improving diets. □

International Meetings—February

Date	*Organization and location*
To be set	Multilateral Trade Negotiations (MTN) briefings for U.S. Congressional committees, Washington, D.C.
To be set	International Cotton Advisory Committee experts. Location to be set.
To be set	U.S.-Mexico tomato discussions, Mexico.
4-6	National Dry Bean Council, annual meeting, Washington, D.C.
5-9	FAO Intergovermental group on oilseeds, oils, and fats, Rome.
7-11	National Soybean Processors' Association directors, Scottsdale, Ariz.
20-22	OECD working party on fruits and vegetables, Paris.
22	Board for International Food and Agricultural Development (BIFAD), Washington, D.C.
26-Mar. 2	UNCTAD Negotiating Conference on a Common Fund, Geneva.

Trade Teams—February

U.S. Teams Overseas

Date	*Organization*	*Visiting*
Jan. 24-Feb. 15	U.S. seed trade team	Brazil, Venezuela, Dominican Republic, Haiti, Jamaica
5-11	Millers' National Federation team	Haiti